This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended) A process to make ~~a~~ conductive a fluorinated polymer composition, ~~wherein~~ said process comprising:

a) mixing an aqueous solution of an anilinium salt ~~is mixed~~ with an aqueous dispersion of a fluorinated polymer,

b) adding an oxidant ~~for~~ polymerizing the anilinium salt ~~is added~~ to the mixture of step a) to make a blend of said fluorinated polymer and resultant doped polyaniline (PANI),

c) removing by-products and unreacted aniline ~~are removed~~ by washing with water or an alcohol to obtain a blend of purified fluorinated polymer and doped PANI,

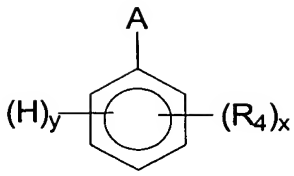
d) optionally mixing ~~the~~ purified fluorinated polymer and doped PANI of step c) ~~are mixed~~ with an acid,

e) removing water ~~is removed~~ from ~~the~~ purified fluorinated polymer and doped PANI of step c) or d) ~~if any~~ to obtain a powder.

Claim 2 (Currently Amended) A process according to claim 1 wherein the fluorinated polymer is ~~selected from the group consisting of~~ a vinylidene fluoride (VF2) ~~homopolymers~~ homopolymer ~~and~~ or ~~copolymers~~ copolymer containing at least 50% by weight of VF2, the copolymer being ~~chosen from~~ chlorotrifluoroethylene (CTFE), hexafluoropropylene (HFP), trifluoroethylene (VF3) ~~and~~ or tetrafluoroethylene (TFE).

Claim 3 (Currently Amended) A process according to claim 1 wherein the anilinium salt is produced by reacting an aniline with an acid ~~selected from the group consisting of acids~~ of formula (2) A—R_3

~~and~~ or (3)



wherein: A is sulfonic acid, selenic acid, phosphonic acid, ~~or~~ a carboxylic acid group, ~~or~~ hydrogen sulfate, hydrogen selenate, or hydrogen phosphate;

x is an integer from 0 to 5;

y is an integer from 0 to 4 with the proviso that the sum of x and y is 5;

R_3 is alkyl, alkenyl, alkoxy, alkanoyl, alkylthio, or alkylthioalkyl, having from 1 to about 20 carbon atoms; or alkylaryl, arylalkyl, alkylsulfinyl, alkoxyalkyl, alkylsulfonyl, alkoxycarbonyl, or carboxylic acid, where ~~the~~ alkyl or alkoxy has from 0 to about 20 carbon atoms; or alkyl having from 3 to about 20 carbon atoms substituted with one or more sulfonic acid, carboxylic acid, halogen, nitro, cyano, diazo, or epoxy moieties; or a substituted or unsubstituted 3, 4, 5, 6 or 7 membered aromatic or alicyclic carbon ring, which ring may include one or more divalent heteroatoms of nitrogen, sulfur, sulfinyl, sulfonyl or oxygen, ~~such as thiophenyl, pyrolyl, furanyl, pyridinyl.~~

~~In addition to these monomeric acid forms~~, or R_3 ~~can be~~ is a polymeric backbone from which ~~depend~~ depends a plurality of acid functions "A" ~~Examples of polymeric acids include sulfonated polystyrene, sulfonated polyethylene and the like. In these cases the polymer backbone should be selected to be soluble in the nonpolar organic solvent (plasticizer) such that highly polar polymers, for example polyacrylic acid or poly(vinylsulfonate) or the like, are usually not preferred.~~

R_4 is the same or different at each occurrence and is alkyl, alkenyl, alkoxy, cycloalkyl, cycloalkenyl, alkanoyl, alkylthio, aryloxy, alkylthioalkyl, alkylaryl, arylalkyl, alkylsulfinyl, alkoxyalkyl, alkylsulfonyl, aryl, arylthio, arylsulfinyl, alkoxycarbonyl, arylsulfonyl, carboxylic acid, halogen,

cyano, or alkyl substituted with one or more sulfonic acid, carboxylic acid, halogen, nitro, cyano, diazo or epoxy moieties; or any two R substituents taken together are an alkylene or alkenylene group completing a 3, 4, 5, 6 or 7 membered aromatic or alicyclic carbon ring or multiples thereof, which ring or rings may include one or more divalent heteroatoms of nitrogen, sulfur, sulfinyl, sulfonyl or oxygen. ~~R_4 typically has from about 1 to about 20 carbons especially 3 to 20 and more especially from about 8 to 20 carbons.~~

Claim 4 **(Currently Amended)** A process according to claim 1 wherein the oxidant is ~~selected from the group consisting of~~ ammonium persulfate, potassium persulfate or sodium persulfate.

Claim 5 **(Currently Amended)** A process according to claim 3, ~~comprising step (d) and~~ wherein the acid in step d) is the same as the one used to make the anilinium salt ~~of~~ used in step a).

Claim 6 **(Original)** A process according to claim 1, further comprising melting and shaping the powder of step e).

Claim 7 **(Currently Amended)** A process according to claim 3, wherein the oxidant is ~~selected from the group consisting of~~ ammonium persulfate, potassium persulfate or sodium persulfate.

Claim 8 **(Currently Amended)** In a process for producing a conductive fluorinated polymer composition, the ~~steps wherein~~ improvement comprising:

a) mixing an aqueous solution of an anilinium salt ~~is mixed~~ with an aqueous dispersion of a fluorinated polymer,

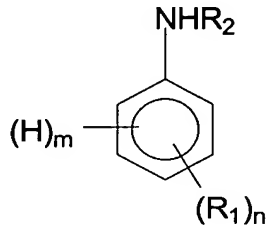
b) adding an oxidant for polymerizing the anilinium salt ~~is added~~ to the mixture of step a) to make a blend of said fluorinated polymer and resultant doped polyaniline (PANI).

Claim 9 **(Original)** A process according to claim 1, wherein the oxidant is water-soluble.

Claim 10 **(Original)** A process according to claim 8, wherein the oxidant is water-soluble.

Claim 11 **(Currently Amended)** A process according to claim 10, wherein the oxidant is ~~selected from the group consisting of~~ ammonium persulfate, potassium persulfate or sodium persulfate.

Claim 12 **(New)** A process according to claim 1, wherein the amilinum salt is prepared from a aniline of formula (1)



wherein:

- n is an integer from 0 to 5;
- m is an integer from 0 to 5, with the proviso that the sum of n and m is equal to 5 and with the further proviso that at least one position on the aniline ring is substituted with a substituent which will allow coupling of anilines;
- R_1 is alkyl, deuterium, alkenyl, alkoxy, cycloalkyl, cycloalkenyl, alkanoyl, alkylthio, aryloxy, alkylthioalkyl, alkylaryl, arylalkyl, amino, alkylamino, dialkylamino, arylamino, diarylamino, alkylarylamino, aryl, alkylsulfinyl, aryloxyalkyl, alkylsulfinylalkyl, alkoxyalkyl, phosphonic acid, alkylsulfonyl, arylthio, alkylsulfonylalkyl, boric acid, phosphoric acid, sulfinate salts, arylsulfinyl, alkoxycarbonyl, arylsulfonyl, carboxylic acid,

phosphonic acid, halo, hydroxy, cyano, sulfinic acid, a carboxylate salt, a borate salt, a phosphate salt, a sulfonate salt, a phosphinate salt, phosphonate salt, a phosphonic acid, sulfonic acid, nitro, or alkylsilane, each optionally substituted with one or more phosphonic acid, sulfonic acid, phosphoric acid, boric acid, carboxylate salt, borate salt, sulfonate salt, phosphinate salt, phosphonate salt, phosphate salt, phosphinic acid, carboxylic acid, halo, nitro, amino, alkylamino, dialkylamino, arylamino, diarylamino, alkylarylamino, cyano or epoxy moieties; or any two R_1 groups together or any R_2 group together with any R_2 group optionally forms a substituted or unsubstituted alkylene, alkenylene or alkynylene chain completing a 3, 4, 5, 6, 7, 8, 9 or 10 membered aromatic, heteroaromatic, heteroalicyclic or alicyclic ring, which ring may optionally include one or more divalent nitrogen, sulfur, sulfinyl, ester, carbonyl, sulfonyl, or oxygen atoms wherein permissible substituents are one or more phosphonic acid, sulfonic acid, phosphoric acid, boric acid, carboxylate salt, borate salt, sulfonate salt, phosphinate salt, phosphonate salt, phosphate salt, phosphinic acid, carboxylic acid, halo, nitro, amino, alkylamino, dialkylamino, arylamino, diarylamino, alkylarylamino, cyano or epoxy moieties; or R_1 is an aliphatic moiety having repeating units of the formula:

$$--(OCH2CH2)_qO—CH3$$

$$--(OCH2CH(CH3))_qO—CH3$$

$$--(CH2)_qCF3$$

$$--(CF2)_q--CF3 \text{ or}$$

$$--(CH2)_q—CH3$$

wherein q is a positive whole number; and R_2 is a permissible R_1 substituent or hydrogen.

Claim 13 (New) A process according to claim 12, wherein substituted aniline is 2-Cyclohexylaniline, 2-Acetylaniline, Aniline, 2,5-Dimethylaniline, o-Toluidine, 2,3-Dimethylaniline, 4-Propanoylaniline, 4-Benzylaniline, 2-(Methylamino)aniline, 4-Aminoaniline, 2-(Dimethylamino)aniline, 2-Methylthiomethylaniline, 2-Methyl-4-methoxy-carbonylaniline, 4-(2,4-Dimethylphenyl)aniline, N-Ethylaniline, 2-Ethylthioaniline, 4-

Carboxyaniline, N-Methyl aniline, N-Methyl aniline, N-Propyl-m-toluidine, 2,4-Dimethylaniline, N-Methyl-o-cyanoaniline, N-Propyl aniline, 2,5-Dibutylaniline, N-Hexyl aniline, 2,5-Dimethoxyaniline, m-Toluidine, Tetrahydronaphthylamine, o-Ethylaniline, o-Cyanoaniline, m-Ethylaniline, 2-Methylthioaniline, o-Ethoxyaniline, 2,5-Dichloroaniline, m-Butylaniline, 3-(n-Butanesulfonic acid) aniline, m-Hexylaniline, m-Octylaniline, 3-Propoxymethylaniline, 4-Bromoaniline, 2,4-Dimethoxyaniline, 2-Bromoaniline, 4-Mercaptoaniline, 3-Bromoaniline, 4-Ethylthioaniline, 3-Acetamidoaniline, 3-Phenoxyaniline, 4-Acetamidoaniline, 4-Phenoxyaniline, 5-Chloro-2-methoxy-aniline, N-Octyl m-toluidine, 5-Chloro-2-ethoxy-aniline, 4-Trimethylsilylaniline, N-Hexyl-m-Toluidine, 3-Amino carbazole, 4-Phenylthioaniline, N-(p-Amino phenyl) aniline, 3-Amino-9-methylcarbazole, or 4-Amino carbazole.

Claim 14 (New) A process according to claim 1, wherein the acid of step a) is p-toluene sulfonic acid, dodecylbenzene sulfonic acid, naphtalene disulfonic acid or naphtalene sulfonic acid.

Claim 15 (New) A process according to claim 3, wherein the acid of step a) is a polymeric backbone from which depends a plurality of acid functions A.